



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,023	09/29/2005	Andrea Giraldo	NL 030336	8259
24737	7590	07/13/2007	EXAMINER	
PHILIPS INTELLECTUAL PROPERTY & STANDARDS			ZUBAJLO, JENNIFER L	
P.O. BOX 3001			ART UNIT	PAPER NUMBER
BRIARCLIFF MANOR, NY 10510			2629	
MAIL DATE		DELIVERY MODE		
07/13/2007		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/551,023	GIRALDO ET AL.
	Examiner	Art Unit
	Jennifer Zubajlo	2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 29 September 2005.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-11 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-11 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 29 September 2005 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date: _____
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date <u>9/29/2005</u> .	6) <input type="checkbox"/> Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Iranpour Khormaei (Patent Number: 5,652,600), hereinafter Khormaei et al.

As to claims 1 and 11, Khormaei teaches:

A display device and method for driving a display device comprising: a display with a plurality of light emitting elements, and data lines (see figures 2-9) for providing pulse width modulation (PWM) signals to the light emitting elements (see figure 10-13 & column 1 lines 36-52); and means coupled to the data lines for generating, during time intervals of a frame period, at least a first non-zero emission level of a light emitting element during a first one of the time intervals and a second non-zero emission level during a second one of the time intervals (see figures 14 & 15 & column 2 lines 54-67, column 3 lines 1-14 & column 8 lines 1-55).

As to claim 2 (dependent on claim 1), Khormaei teaches the display further comprising selection lines, each selection line being coupled to a part of the plurality of light emitting elements (see figures 2-9), the generating means being further coupled to the selection lines for applying a multiline addressing scheme to the data lines and the selection lines (see column 6 lines 57-67 & column 7 lines 1-47).

As to claims 3-5 (dependent on claim 1), the generating means adapted to generate time intervals of a substantially binary weighted duration in any order and to generate the first and second emission levels via the data lines in a sequential mode and a intermixed mode are just engineering choices of design.

As to claim 9 (dependent on claim 1), Khormaei teaches the generating means are adapted to generate the second emission level at a level substantially equal to the first emission level multiplied by a number of selectable combinations of time intervals (see figures 14,15 & column 8 lines 1-55).

As to claim 10 (dependent on claim 1), Khormaei teaches an electric device comprising a display device according to claim 1 (see figures 2-15, column 1 lines 36-52 figures & column 2 lines 54-67, column 3 lines 1-14 & column 8 lines 1-55)

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iranpour Khormaei (Patent Number: 5,652,600) in view of Hak Su Kim (Patent Number: US 7,119,773 B2), hereinafter Kim.

As to claims 3-5 (dependent on claim 1), Khormaei teaches the limitations as described above in the rejection of claim 1.

The generating means adapted to generate time intervals of a substantially binary weighted duration in any order and to generate the first and second emission levels via the data lines in a sequential mode and a intermixed mode are just engineering choices of design and are not directly taught by Khormaei.

Kim teaches binary data and sequential data (see column 4 lines 30-44).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the display device taught by Khormaei with the binary and sequential data taught by Kim because this provides different modes of data.

Art Unit: 2629

5. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iranpour Khormaei (Patent Number: 5,652,600) in view of Allen J. Rushing (Patent Number: US 6,567,171 B1), hereinafter Rushing.

As to claim 6 (dependent on claim 3), Khormaei teaches the limitations as described above in the rejection of claims 1 and 3.

Khormaei does not teach the generating means comprising a control unit, and a data driver comprising a first current source for generating the first emission level and a second current source for generating the second emission level.

Rushing teaches the generating means comprising a control unit, and a data driver comprising a first current source for generating the first emission level and a second current source for generating the second emission level (see column 9 lines 36-46 & column 12 lines 18-30).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the display device taught by Khormaei with the first and second current sources taught by Rushing in order to obtain intensity control within a light emitting display device.

As to claim 7 (dependent on claim 5), Khormaei teaches the limitations as described above in the rejection of claims 1 and 5. Khormaei also teaches the generating means pre-charging the data lines (see figures 2-6)

Khormaei does not teach coupling one of the current sources to one of the data lines.

Rushing teaches coupling one of the current sources to one of the data lines (see figure 3, column 9 lines 36-46 & column 12 lines 18-30).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the display device taught by Khormaei with the current sources taught by Rushing in order to obtain intensity control within a light emitting display device.

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Iranpour Khormaei (Patent Number: 5,652,600) in view of Charles Pooley (Patent Number: US 4,771,278), hereinafter Pooley.

As to claim 8 (dependent on claim 1), Khormaei teaches the limitations as described above in the rejection of claim 1.

Khormaei does not teach a power line for coupling a first supply voltage to the plurality of light emitting elements for generating the first emission level and a second supply voltage for generating the second emission level, respectively.

Pooley teaches a power line for coupling a first supply voltage to the plurality of light emitting elements for generating the first emission level and a second supply voltage for generating the second emission level, respectively (see claim 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the display device taught by Khormaei with the first and

Art Unit: 2629

second supply voltages (power supplies) taught by Pooley in order to supply different voltages to the light emitting elements.

Note: References cited include just some examples that Examiner feels best explain the prior art rejection. However, the entire references teach the scope of the claims in more detail. Examiner recommends that Applicant read the full disclosures.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Patent Number: US 4,021,607; Patent Number: US 6,288,695 B1; Patent Number US 6,281,868 B1; and Publication Number: US 2002/0130893 A1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer Zubajlo whose telephone number is (571) 270-1551. The examiner can normally be reached on Monday-Friday, 8 am - 5 pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on (571) 272-7674. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2629

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JZ
7/6/07



AMARE MENGISTU
SUPERVISORY PATENT EXAMINER